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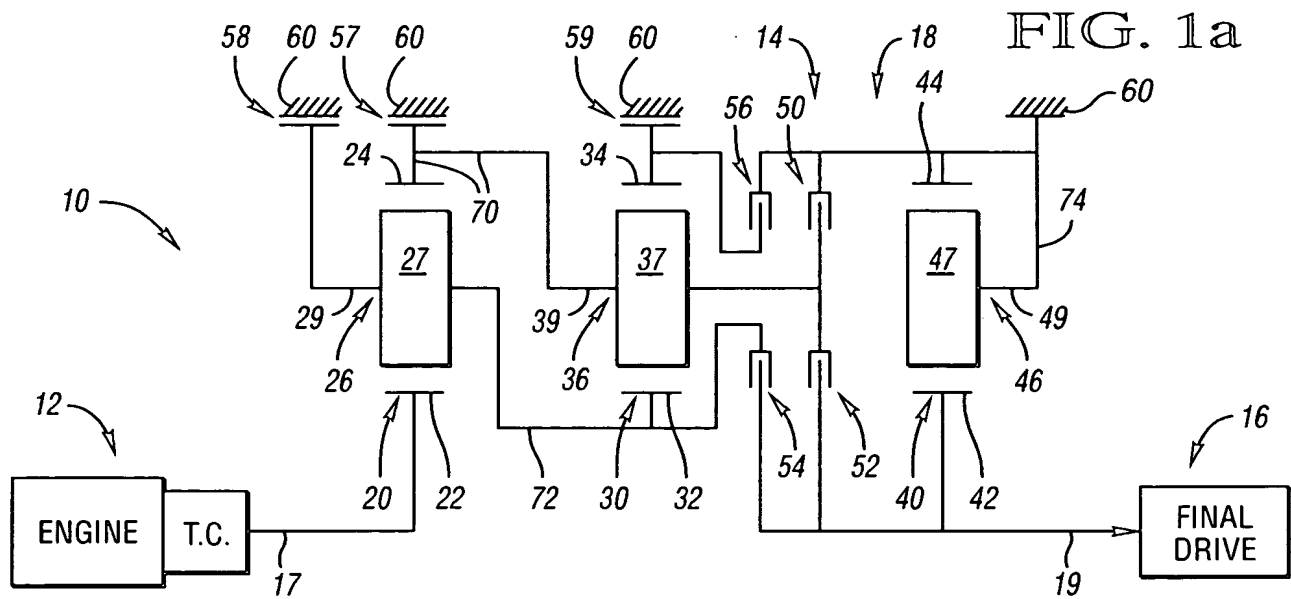


FIG. 1b

	RATIOS	50	52	54	56	57	58	59
REVERSE 3	-6.17	X						X
REVERSE 2	-3.01		X				X	
REVERSE 1	-0.67	X			X			
NEUTRAL	0.00		X					
1	14.74		X		X			
2	9.23		X					X
3	6.02	X		X				
3'	5.50				X	X		
4	4.38			X	X			
4'	4.01			X		X		
5	3.02			X				X
6	2.01	X					X	
7	1.35				X		X	
8	1.00		X	X				

(X = ENGAGED CLUTCH)

RING GEAR TOOTH RATIO: $\frac{N_{R1}}{N_{S1}} = 3.01$, $\frac{N_{R2}}{N_{S2}} = 2.05$, $\frac{N_{R3}}{N_{S3}} = 1.50$

RATIO SPREAD	14.74
RATIO STEPS	
REV3/1	-0.42
1/2	1.60
2/3	1.53
3/4	1.37
4/5	1.45
5/6	1.50
6/7	1.49
7/8	1.35

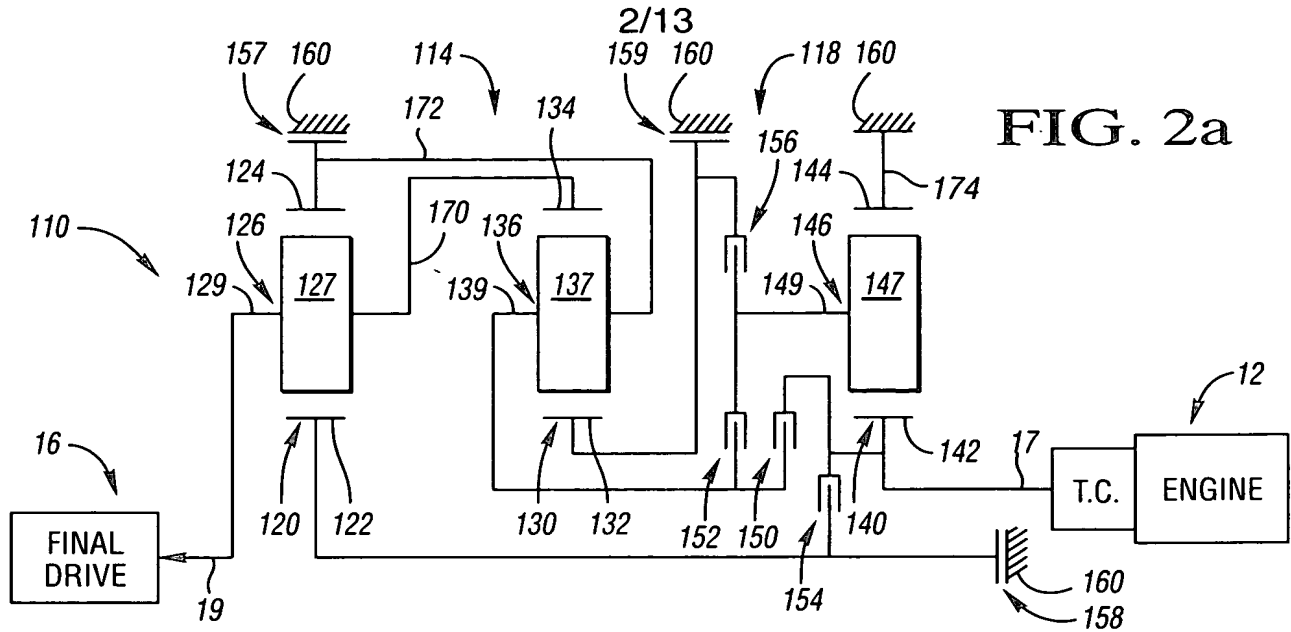


FIG. 2a

FIG. 2b

	RATIOS	150	152	154	156	157	158	159
REVERSE	-9.06				X	X		
NEUTRAL	0.00				X			
1	7.84				X		X	
2	4.83		X				X	
2'	4.01			X		X		
3	3.63		X		X			
4	2.59		X					X
4'	2.19		X	X				
5	1.86			X				X
6	1.50			X	X			
6'	1.33	X					X	
7	1.00	X		X				
8	0.77	X			X			
9	0.71	X						X

(X = ENGAGED CLUTCH)

$\frac{\text{RING GEAR}}{\text{SUN GEAR}}$ TOOTH RATIO: $\frac{N_{R1}}{N_{S1}} = 3.01$, $\frac{N_{R2}}{N_{S2}} = 2.50$, $\frac{N_{R3}}{N_{S3}} = 2.63$

RATIO SPREAD	11.04
RATIO STEPS	
REV/1	-1.15
1/2	1.62
2/3	1.87
3/4	1.39
4/5	1.24
5/6	1.50
6/7	1.29
7/8	1.09
8/9	1.08

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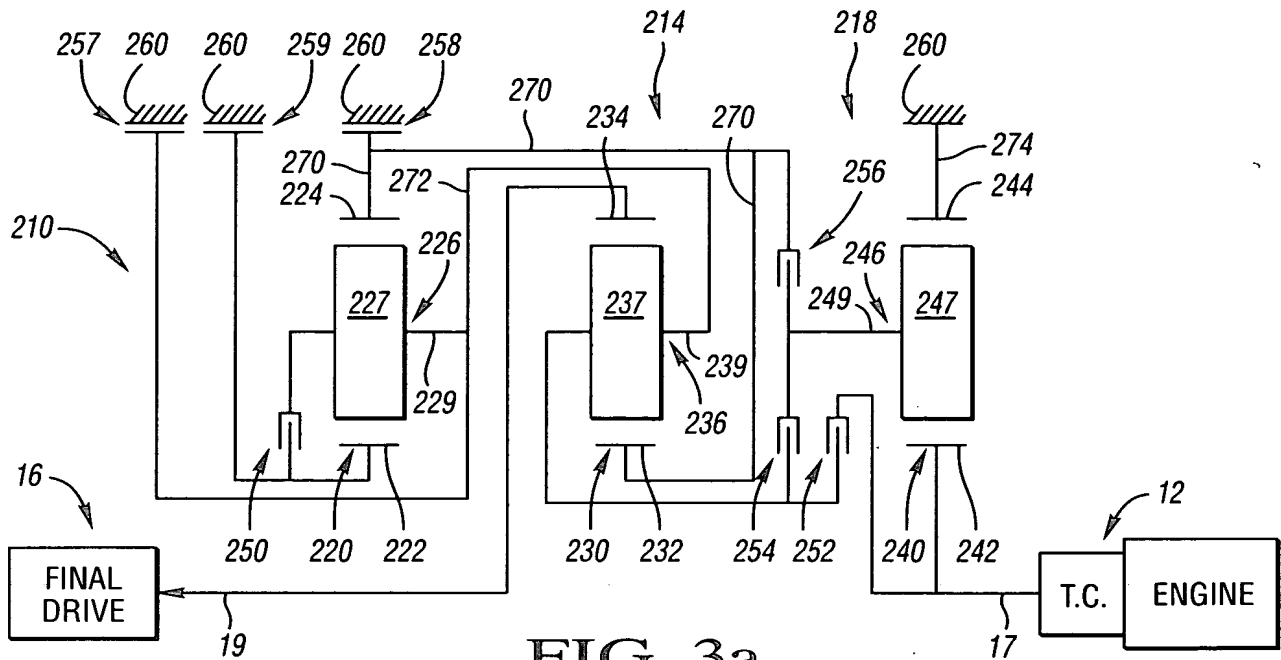


FIG. 3a

FIG. 3b

	RATIOS	250	252	254	256	257	258	259
REVERSE	-5.91				X	X		
NEUTRAL	0.00				X			
1	7.06				X			X
2	4.25			X				X
3	2.88	X		X				
4	1.94			X			X	
5	1.48		X					X
6	1.00	X	X					
7	0.76		X		X			
8	0.67		X				X	

(X = ENGAGED CLUTCH)

RING GEAR TOOTH RATIO: $\frac{N_{R1}}{N_{S1}} = 1.51$, $\frac{N_{R2}}{N_{S2}} = 2.05$, $\frac{N_{R3}}{N_{S3}} = 1.88$

RATIO SPREAD	10.05
RATIO STEPS	
REV/1	-0.84
1/2	1.66
2/3	1.48
3/4	1.49
4/5	1.31
5/6	1.48
6/7	1.32
7/8	1.13

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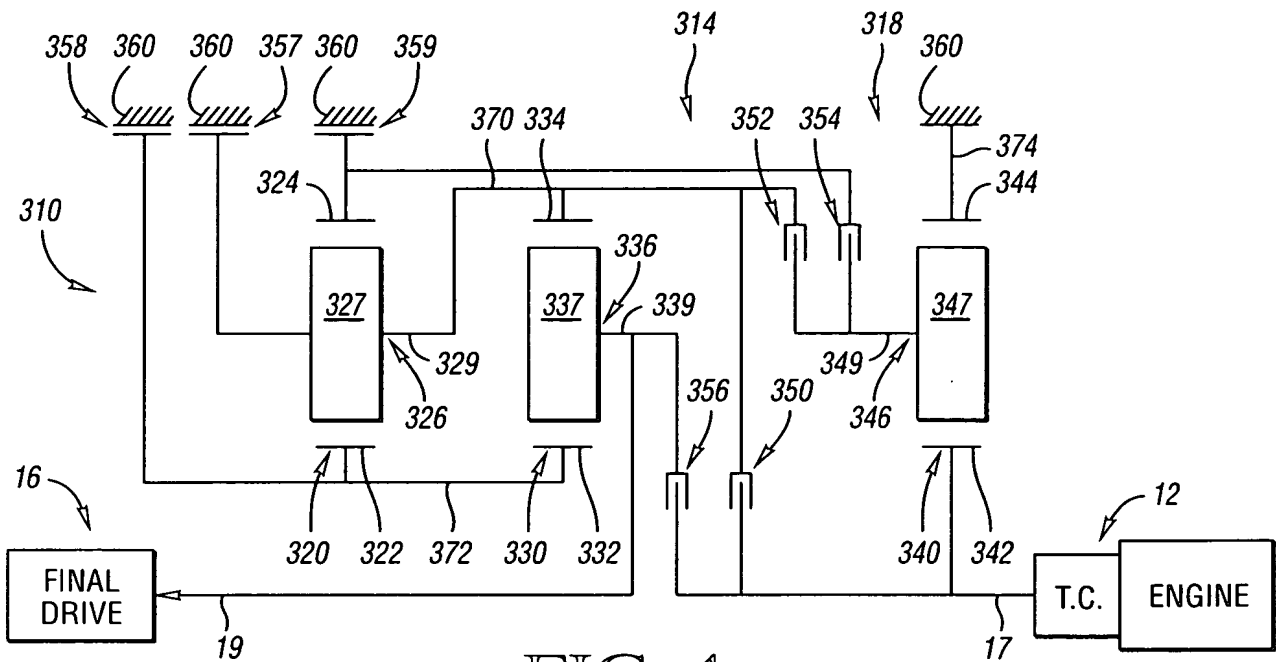


FIG. 4a

FIG. 4b

	RATIOS	350	352	354	356	357	358	359
REVERSE 1	-2.58			X		X		
NEUTRAL	0.00			X				
1	5.90			X			X	
2	4.18		X				X	
3	2.50		X	X				
4	1.67	X					X	
5	1.27		X					X
6	1.00				X			X
7	0.63	X		X				
8	0.51	X						X

(X = ENGAGED CLUTCH)

RING GEAR TOOTH RATIO: $\frac{N_{R1}}{N_{S1}} = 2.42$, $\frac{N_{R2}}{N_{S2}} = 1.50$, $\frac{N_{R3}}{N_{S3}} = 1.50$

RATIO SPREAD	11.62
RATIO STEPS	
REV/1	-0.44
1/2	1.41
2/3	1.67
3/4	1.50
4/5	1.31
5/6	1.27
6/7	1.58
7/8	1.24

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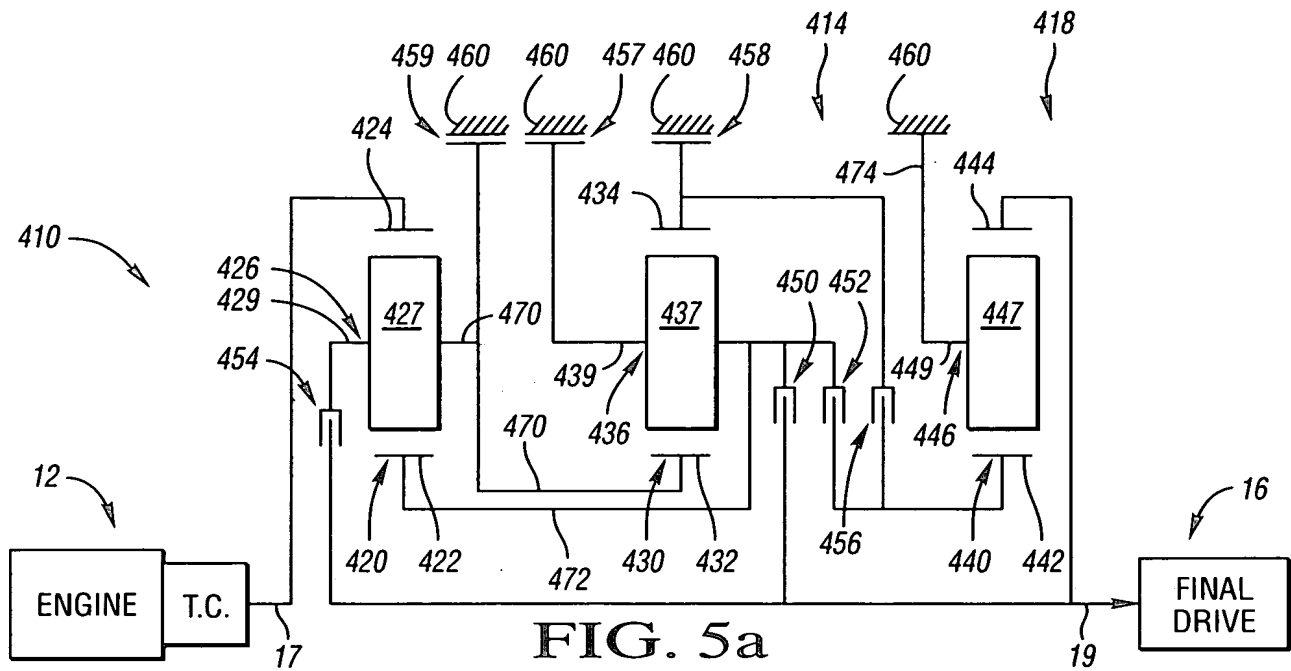


FIG. 5a

FIG. 5b

	RATIOS	450	452	454	456	457	458	459
REVERSE 2	-8.28		X				X	
REVERSE 1	-2.00		X		X			
NEUTRAL	0.00				X			
1	10.44	X			X			
2	6.29				X	X		
3	4.15	X					X	
4	2.60		X	X				
5	2.07			X	X			
6	1.53			X		X		
7	1.36			X			X	
8	1.00	X		X				
9	0.71				X			X

(X = ENGAGED CLUTCH)

RING GEAR TOOTH RATIO: $\frac{N_{R1}}{N_{S1}} = 1.88$, $\frac{N_{R2}}{N_{S2}} = 2.05$, $\frac{N_{R3}}{N_{S3}} = 2.00$

RATIO SPREAD	14.70
RATIO STEPS	
REV2/1	-0.79
1/2	1.66
2/3	1.52
3/4	1.60
4/5	1.25
5/6	1.35
6/7	1.13
7/8	1.36
8/9	1.41

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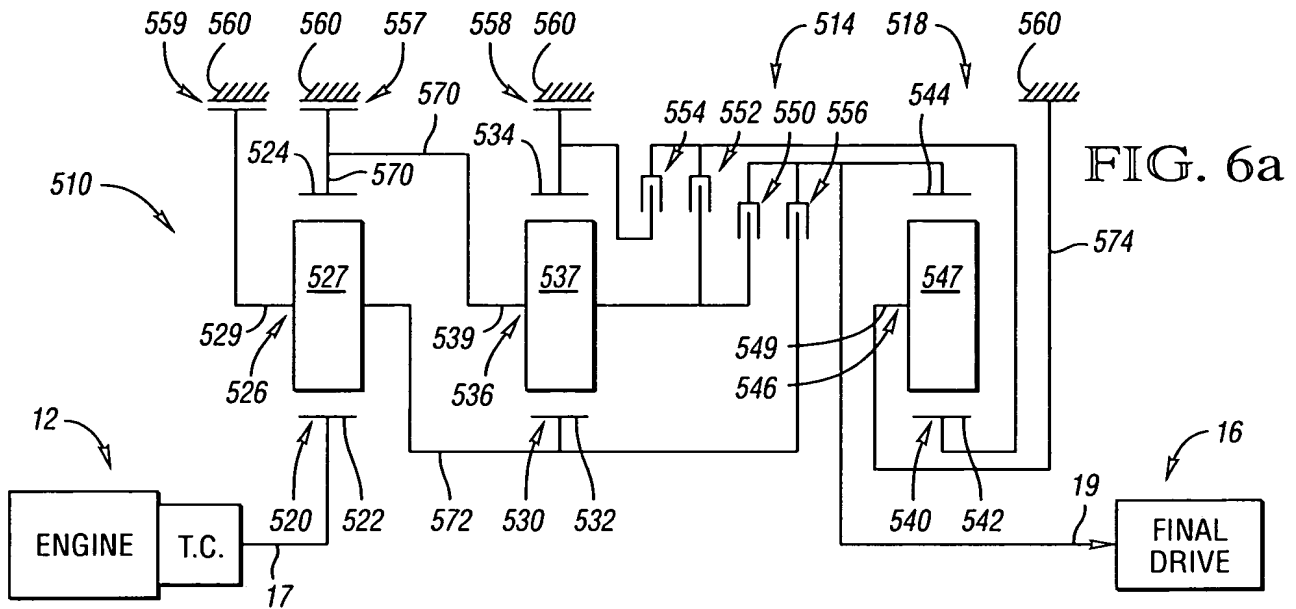


FIG. 6b

	RATIOS	550	552	554	556	557	558	559
REVERSE 3	-25.70		X					X
REVERSE 2	-3.01	X					X	
REVERSE 1	-2.00		X		X			
NEUTRAL	0.00				X			
1	36.57	X			X			
2	23.70				X	X		
3	12.87	X						X
4	10.01		X	X				
5	7.74			X	X			
6	6.00		X				X	
7	4.49				X		X	
7'	4.01			X		X		
8	3.25			X				X
9	1.00	X		X				

(X = ENGAGED CLUTCH)

TOOTH RATIO: $\frac{N_{R1}}{N_{S1}} = 3.01$, $\frac{N_{R2}}{N_{S2}} = 2.97$, $\frac{N_{R3}}{N_{S3}} = 2.00$

RATIO SPREAD	36.57
RATIO STEPS	
REV3/1	-0.70
1/2	1.54
2/3	1.84
3/4	1.66
4/5	1.29
5/6	1.34
6/7	1.34
7/8	1.38
8/9	3.25

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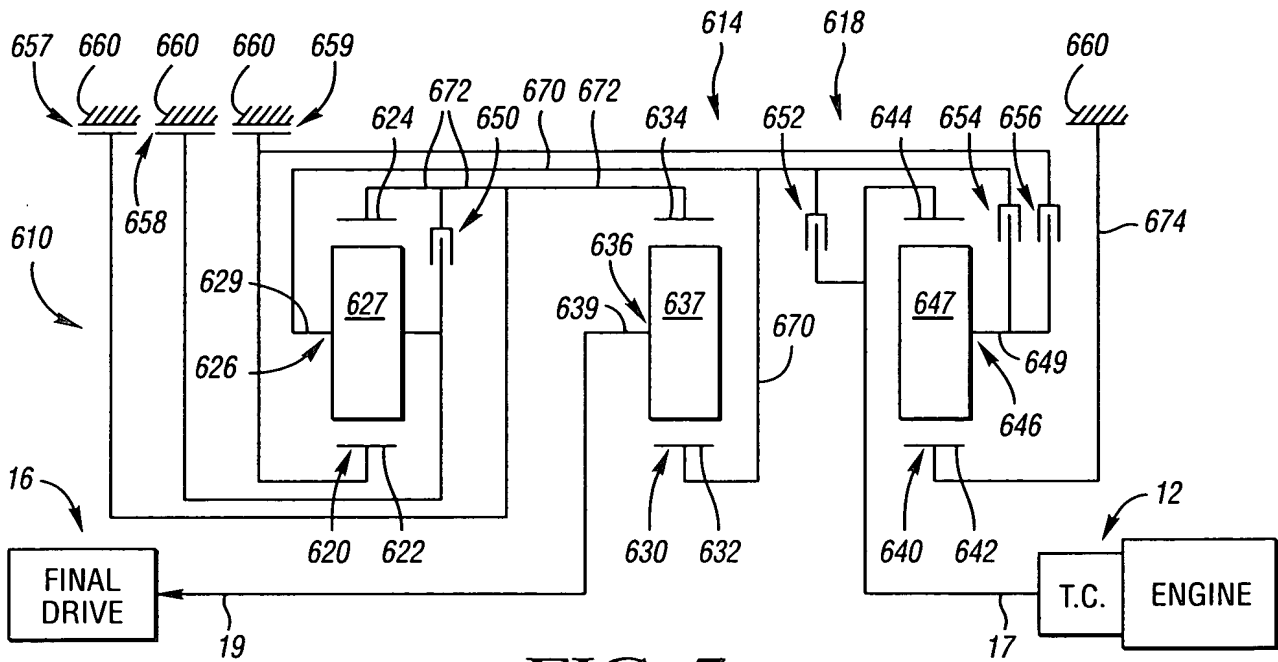


FIG. 7a

FIG. 7b

	RATIOS	650	652	654	656	657	658	659
REVERSE	-3.95				X		X	
NEUTRAL	0.00				X			
1	9.86				X	X		
2	3.95			X		X		
3	2.50		X			X		
4	1.58	X		X				
5	1.13			X				X
6	1.00	X	X					
7	0.87		X		X			
8	0.71		X					X

(X = ENGAGED CLUTCH)

$\frac{\text{RING GEAR}}{\text{SUN GEAR}}$ TOOTH RATIO: $\frac{N_{R1}}{N_{S1}} = 1.50$, $\frac{N_{R2}}{N_{S2}} = 1.50$, $\frac{N_{R3}}{N_{S3}} = 1.72$

RATIO SPREAD	13.81
RATIO STEPS	
REV/1	-0.40
1/2	2.50
2/3	1.58
3/4	1.58
4/5	1.40
5/6	1.13
6/7	1.15
7/8	1.22

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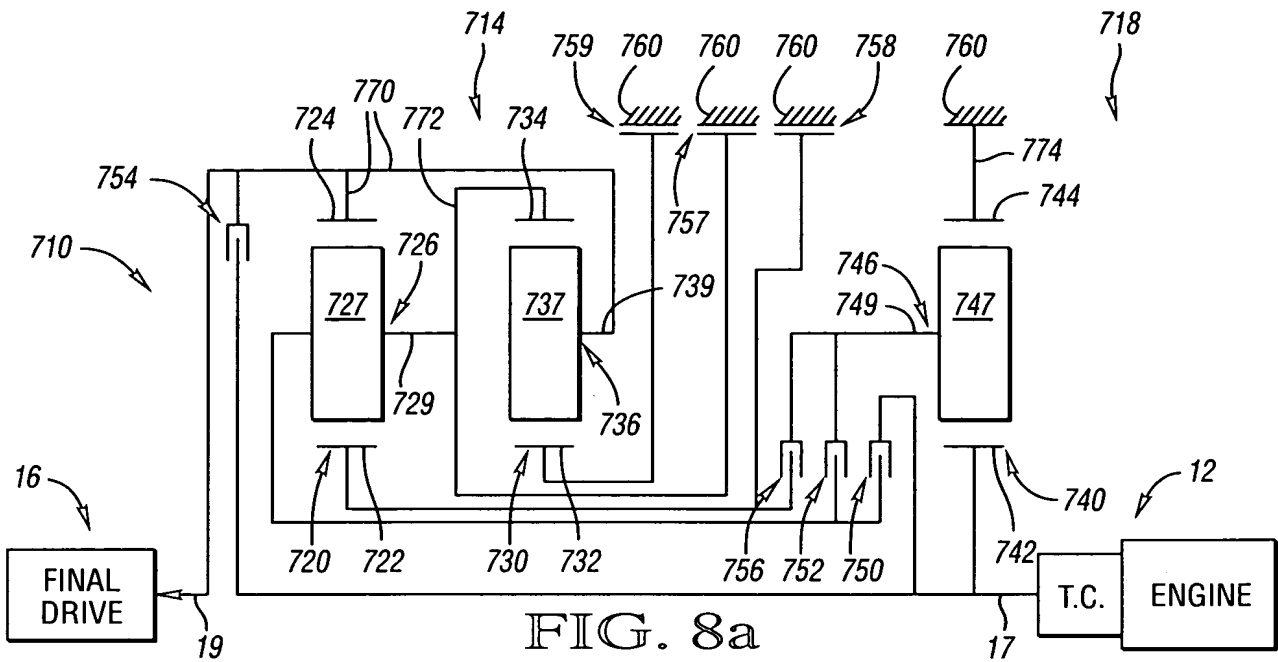


FIG. 8a

FIG. 8b

	RATIOS	750	752	754	756	757	758	759
REVERSE	-4.34				X	X		
NEUTRAL	0.00				X			
1	5.90				X			X
2	4.08		X					X
3	2.88		X		X			
4	1.73		X				X	
5	1.42	X						X
6	1.00	X		X				
7	0.70	X			X			
8	0.60	X					X	

(X = ENGAGED CLUTCH)

$$\frac{\text{RING GEAR}}{\text{SUN GEAR}} \text{ TOOTH RATIO: } \frac{N_{R1}}{N_{S1}} = 1.51, \frac{N_{R2}}{N_{S2}} = 2.39, \frac{N_{R3}}{N_{S3}} = 1.88$$

RATIO SPREAD	9.81
RATIO STEPS	
REV/1	-0.74
1/2	1.44
2/3	1.42
3/4	1.66
4/5	1.22
5/6	1.42
6/7	1.43
7/8	1.16

FIG. 9b

	RATIOS	850	852	854	856	857	858	859
REVERSE	-10.74			X		X		
NEUTRAL	0.00			X				
1	7.77			X				X
2	4.67		X					X
3	3.63		X	X				
4	2.71		X				X	
5	2.28		X		X			
6	1.88				X		X	
7	1.51			X	X			
7'	1.29	X						X
8	1.00	X			X			
9	0.80	X		X				
10	0.75	X					X	

(X = ENGAGED CLUTCH)

$$\frac{\text{RING GEAR}}{\text{SUN GEAR}} \text{ TOOTH RATIO: } \frac{N_{R1}}{N_{S1}} = 1.51, \frac{N_{R2}}{N_{S2}} = 2.97, \frac{N_{R3}}{N_{S3}} = 2.63$$

RATIO SPREAD	10.36
RATIO STEPS	
REV/1	-1.38
1/2	1.66
2/3	1.29
3/4	1.34
4/5	1.19
5/6	1.21
6/7	1.25
7/8	1.51
8/9	1.25
9/10	1.07

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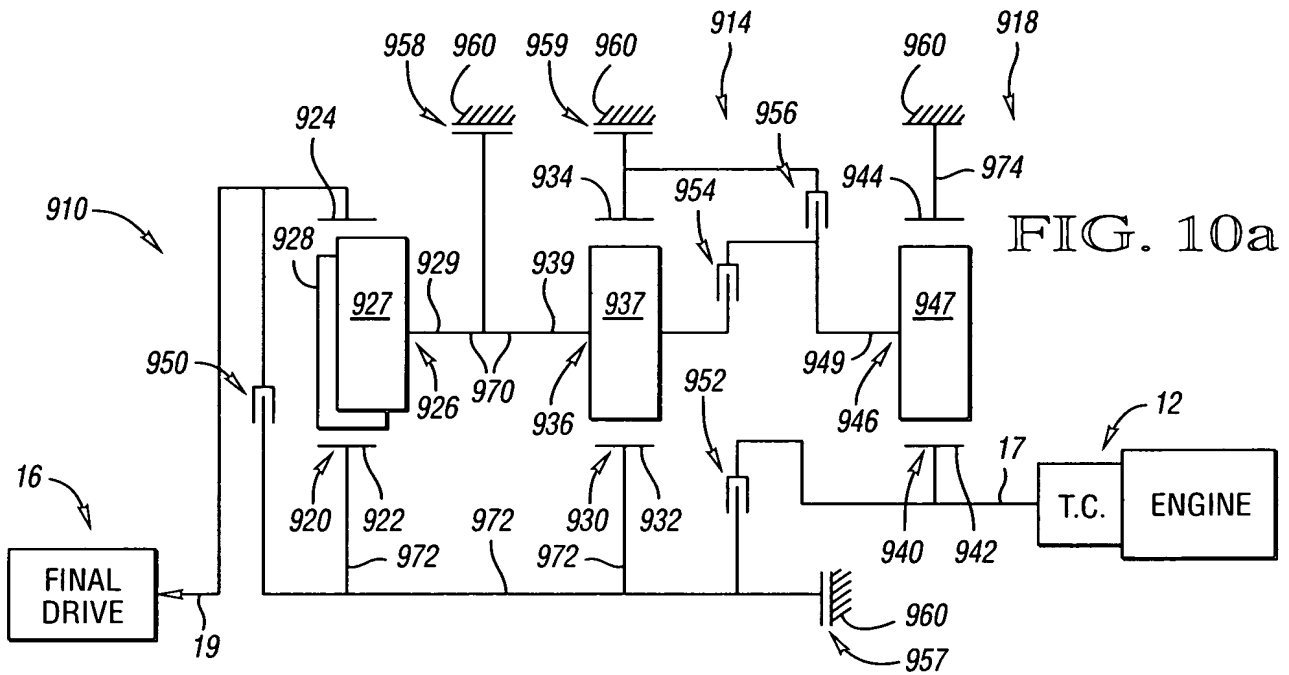


FIG. 10b

	RATIOS	950	952	954	956	957	958	959
REVERSE	-6.91				X		X	
NEUTRAL	0.00				X			
1	9.25				X	X		
2	5.56			X		X		
3	3.63			X	X			
4'	2.87		X				X	
4	2.38			X				X
5	1.90		X	X				
6	1.65		X					X
7	1.40		X		X			
8	1.00	X	X					

(X = ENGAGED CLUTCH)

RING GEAR TOOTH RATIO: $\frac{N_{R1}}{N_{S1}} = 2.87$, $\frac{N_{R2}}{N_{S2}} = 1.51$, $\frac{N_{R3}}{N_{S3}} = 2.63$

RATIO SPREAD	9.25
RATIO STEPS	
REV/1	-0.75
1/2	1.66
2/3	1.53
3/4	1.52
4/5	1.26
5/6	1.15
6/7	1.18
7/8	1.40

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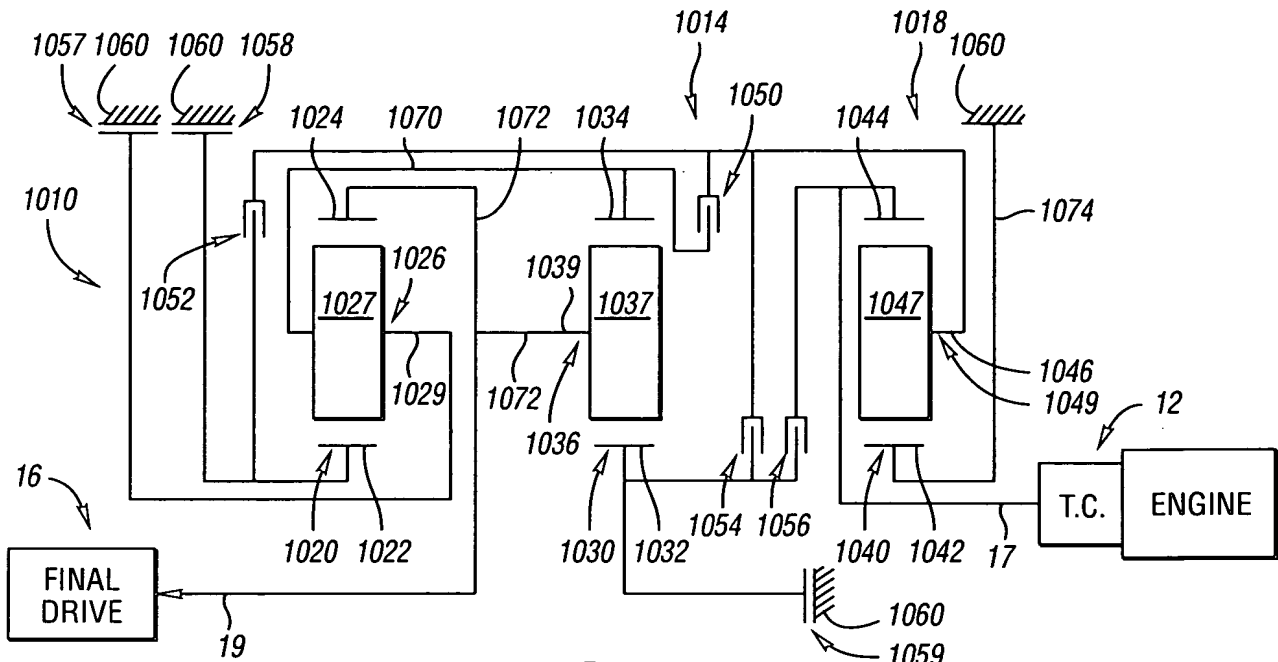


FIG. 11a

FIG. 11b

	RATIOS	1050	1052	1054	1056	1057	1058	1059
REVERSE	-3.65		X			X		
NEUTRAL	0.00					X		
1	5.84			X		X		
2	3.99				X	X		
3	2.72			X			X	
4'	1.96	X						X
4	1.86				X		X	
5	1.46	X	X					
6	1.31	X			X			
7	1.17		X		X			
8	1.04	X					X	

(X = ENGAGED CLUTCH)

RING GEAR TOOTH RATIO: $\frac{N_{R1}}{N_{S1}} = 2.50$, $\frac{N_{R2}}{N_{S2}} = 2.99$, $\frac{N_{R3}}{N_{S3}} = 2.15$

RATIO SPREAD	5.59
RATIO STEPS	
REV/1	-0.62
1/2	1.46
2/3	1.47
3/4	1.46
4/5	1.27
5/6	1.12
6/7	1.12
7/8	1.12

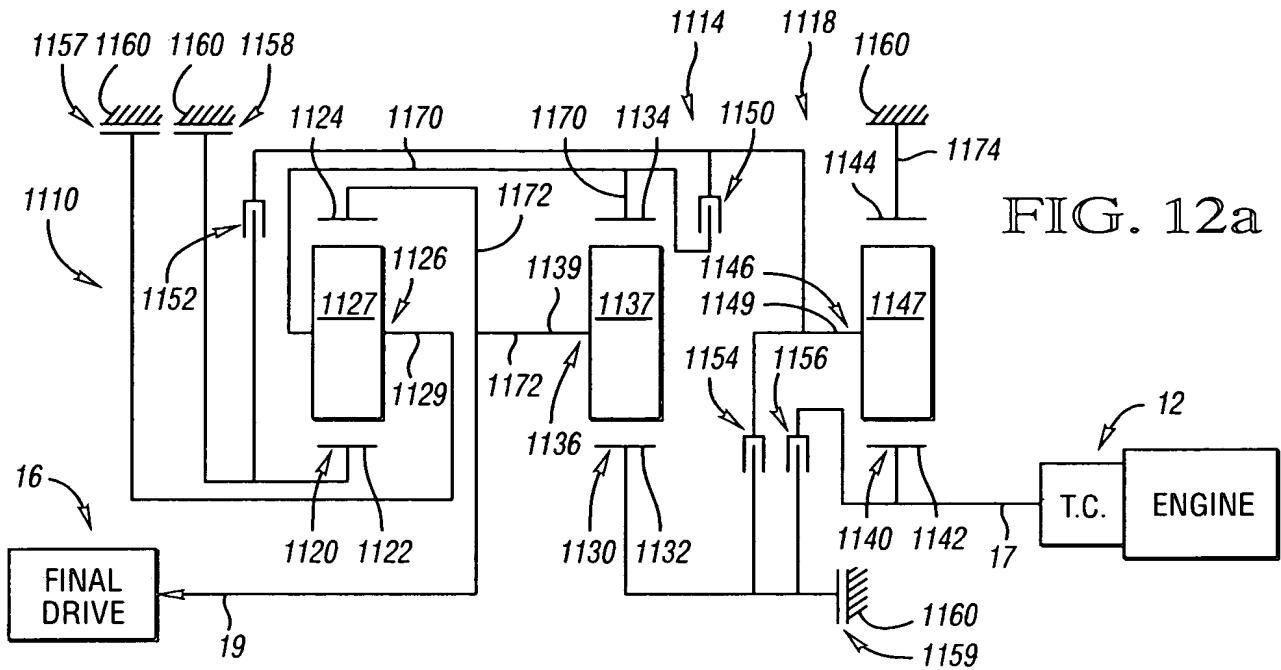


FIG. 12b

	RATIOS	1150	1152	1154	1156	1157	1158	1159
REVERSE	-5.90		X			X		
NEUTRAL	0.00					X		
1	11.70			X		X		
2	7.02			X			X	
3	5.87	X						X
4	3.91		X	X				
5	2.99				X	X		
6	2.35	X					X	
7	1.98	X			X			
8	1.79				X		X	
9	1.49		X		X			

(X = ENGAGED CLUTCH)

$$\frac{\text{RING GEAR}}{\text{SUN GEAR}} \text{ TOOTH RATIO: } \frac{N_{R1}}{N_{S1}} = 1.51, \frac{N_{R2}}{N_{S2}} = 1.99, \frac{N_{R3}}{N_{S3}} = 2.91$$

RATIO SPREAD	7.85
RATIO STEPS	
REV/1	-0.50
1/2	1.67
2/3	1.20
3/4	1.50
4/5	1.31
5/6	1.27
6/7	1.19
7/8	1.11
8/9	1.20

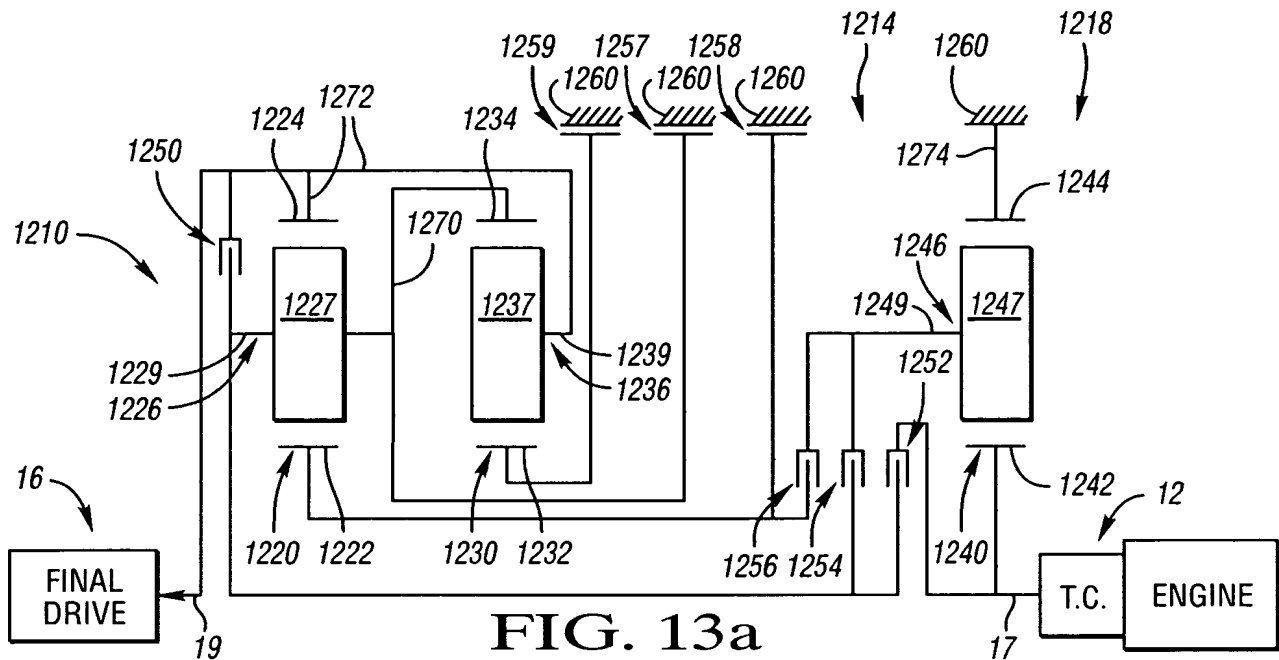


FIG. 13a

	RATIOS	1250	1252	1254	1256	1257	1258	1259
REVERSE	-4.34				X	X		
NEUTRAL	0.00				X			
1	5.90				X			X
2	4.08			X				X
3	2.88	X		X				
4	1.73			X			X	
5	1.42		X					X
6	1.00	X	X					
7	0.70		X		X			
8	0.60		X				X	

FIG. 13b

(X = ENGAGED CLUTCH)

$$\frac{\text{RING GEAR}}{\text{SUN GEAR}} \text{ TOOTH RATIO: } \frac{N_{R1}}{N_{S1}} = 1.51, \frac{N_{R2}}{N_{S2}} = 2.39, \frac{N_{R3}}{N_{S3}} = 1.88$$

RATIO SPREAD	9.81
RATIO STEPS	
REV/1	-0.74
1/2	1.44
2/3	1.42
3/4	1.66
4/5	1.22
5/6	1.42
6/7	1.43
7/8	1.16